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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR      | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|---------------------------|---------------------|------------------|
| 09/937,450      | 09/25/2001  | Nicholas Alexander Rutter | 31574-00006         | 2410             |

7590 06/17/2002

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EXAMINER

NGUYEN, PHUNG

ART UNIT

PAPER NUMBER

2632

DATE MAILED: 06/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/937,450

Applicant(s)

RUTTER ET AL.

Examiner

Phung T Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 September 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Specification*

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

**The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 250 words.** It is important that the abstract not exceed 250 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. This application is informal in the arrangement of the specification. The following guidelines illustrate the preferred layout and content for patent applications. These guidelines are suggested for the applicant's use.

(a) Title of the Invention: The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

(b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.

(c) Background of the Invention: The specification should set forth the Background of the Invention in two parts:

- (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
- (2) Description of the Related Art: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."

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- (d) Brief Summary of the Invention: A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (e) Brief Description of the Several Views of the Drawing(s): A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (f) Detailed Description of the Invention: A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. This item may also be titled "Best Mode for Carrying Out the Invention." Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.

**Note: The headers are missing: Background of the invention, Summary of the invention, Brief description of the drawings, and Detailed description of the embodiments.**

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Regarding claim 1, the phrase "or the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 4, and 7-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamano [U.S. Pat. 5,729,207]

**Regarding claim 1:** Yamano discloses a corrosive gas detecting sensors comprising housing means 11; and detection circuitry 15 (figure 2, col. 3, lines 57-64) for detecting said radiation and/or pollutants; wherein said detection circuitry is contained within a cartridge 10 which is mountable in said housing means and detachable therefrom (figure 1, col. 3, lines 15-29).

**Regarding claim 4:** Yamano discloses the first electrical connection means 17 (figure 3, col. 4, lines 7-14) connectable to an external power supply (col. 4, lines 55-57) and the cartridge includes second electrical connection means 15 (figure 3, col. 60-67) engageable with the first connection means for electrically connecting the cartridge to the power supply.

**Regarding claim 7:** Yamano discloses a plurality of apertures 16 (figure 1, col. 3, lines 30-33) to allow the passage of the radiation and/or into the cartridge for detection by the detection means.

**Regarding claim 8:** Yamano discloses in the first position the closure means closes the apertures and in the second position the closure means opens the apertures as seen in figure 1, col. 3, lines 19-27.

**Regarding claim 9:** Yamano discloses the closure means is movable between the first and second positions in response to insertion and removal of the cartridge into and from the housing means (col. 3, lines 15-28).

**Regarding claim 10:** Yamano discloses a reset signal to the alarm (col. 4, lines 38-54).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 3, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamano in view of Tice [U.S. Pat. 5,440,293]

**Regarding claim 2:** Yamano discloses the housing 11 (figure 1, col. 3, line 18). Yamano does not disclose an upper housing member and a base, the upper housing member and the base being adapted to be fitted together as claimed. However, Tice discloses a detector supervision apparatus and method comprising an upper housing member 20a and a base housing member 20b (figure 1, col. 2, lines 63-68) being adapted to be fitted together. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teaching of Tice in the system of Yamano because forming the upper housing member and the base as two part devices would facilitate long term maintenance which is desirable.

**Regarding claim 3:** Yamano discloses the housing 11 to which the cartridge 10 is attached (figure 1, col. 3, lines 15-27). It is seen that the housing 11 of Yamano including

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support means and carrier means being for seating the cartridge thereon for insertion into the housing means.

**Regarding claim 5:** Yamano does not disclose in the first position the cover means restricts physical access to the first connection means and in the second position the cover means allows engagement of the first and second connection means. However, Tice discloses the cover 20a (figure 1, col. 2, lines 63-65) restricts physical access to the first connection and in the second position the cover means allows engagement of the first and second connection (figure 1, col. 3, lines 1-5). Therefore, it would have been obvious to one of ordinary skill in the art to use the teaching of Tice into the system of Yamano in order to supply power to the device.

**Regarding claim 6:** Yamano discloses insertion and removal of the cartridge 10 into and from the housing means (col. 3, lines 15-29).

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamano in view of Markwell et al. [U.S. Pat. 6,078,269]

**Regarding claim 11:** Yamano does not disclose a test signal to the alarm thereby to test the alarm. However, Markwell et al disclose a battery-powered, RF-interconnected detector sensor system which discloses a test means 65 (figure 1, col. 3, lines 50-59) to test the alarm. Therefore, it would have been obvious to the skilled artisan to employ the teaching of Markwell et al. in the system of Yamano in order to test the system which is an advantage.

*Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Adachi et al. [U.S. Pat. 4,369,435] disclose a fire detector and fire alarm system having circuitry to detect removal of one or more detectors at a signal station.

b. Spang et al. [U.S. Pat. 4,829,283] disclose a supervision arrangement for smoke detectors.

c. Tice et al. [U.S. Pat. 5,172,096] disclose a threshold determination apparatus and method.

d. Soderlund [U.S. Pat. 5,912,626] disclose a dangerous condition warning device incorporating provision for permanently retaining printed protocol instructions.

e. Nakao et al. [U.S. Pat. 4,887,073] disclose a ceiling mounted fire detector assembly.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phung T Nguyen whose telephone number is 703-308-6252. The examiner can normally be reached on 8:00am-5:30pm Mon thru. Friday, with alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffery A Hofsass can be reached on 703-305-4717. The fax numbers for the organization where this application or proceeding is assigned are 703-305-3988 for regular communications and 703-872-9314 for After Final communications.



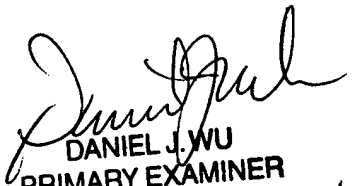
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

Examiner: Phung Nguyen

Date: June 7, 2002

  
DANIEL J. WU  
PRIMARY EXAMINER  
6/13/02